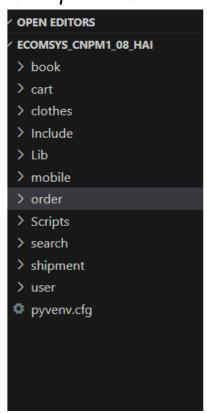
1. Create app: book, mobile, clothes, payment, shipment, order, search, category



2. Cơ sở dữ liệu

```
DATABASES = {
    'default': {
        'ENGINE': 'django.db.backends.mysql',
        'NAME': 'shop',
        'USER': 'root',
        'PASSWORD': 'duchai258',
        '!OST': 'localhost',
           'HOST': 'localhost',
'PORT': '3306',
     },
'mongodb': {
   'ENGINE': 'djongo',
   'CLIENT': {
    'host': 'mongodb+srv://bduchai:duchai258@cluster0.zyl6hxk.mongodb.net/?retryWrites=true&w=majority', # Replaionst': '27017,
     Q Filter objects
     ▼ 🗐 student
         ▼ 🛅 Tables could not be fetched
             auth_group
             ▶ auth_group_permissions
             auth_permission
             ▶ ■ auth_user
             ▶ ■ auth_user_groups
             auth_user_user_permissions
             ▶  acart
             cart_product
             ▶ ■ category
             ▶ dothes
             clothes_categories
                                                               000
             ▶ ■ django_admin_log
             ▶ ■ django_content_type
             ▶ ■ django_migrations
     Administration Schemas
     Information
```



2.Khai báo app trong setings.py

```
INSTALLED_APPS = [
    'django.contrib.admin',
    'django.contrib.auth',
    'django.contrib.contenttypes',
    'django.contrib.sessions',
    'django.contrib.messages',
    'django.contrib.staticfiles',
    'product',
    'cart',
    'category',
    'search',
    'shipment',
    'payment',
    'order',
    'mobile',
    'clothes',
    'book'
```

3. Config Database cho cả mongodb và mysqldb

4. Tạo Router để điều hướng dữ liệu tới database

5.1 Model.py

```
class Book(models.Model):
    category = models.ForeignKey(Category Book, on delete=models.CASCADE,null=True)
    title = models.CharField(max length=255)
    author = models.CharField(max length=255)
    description = models.TextField()
    price = models.DecimalField(default=0.0, max_digits=10, decimal_places=2)
    created_at = models.DateTimeField(default=timezone.now)
    updated_at = models.DateTimeField(auto_now=True)
```

```
@api_view(['POST']) # neu khong co se bi error : 403 Forbidden
def create_book(request):
    serializer = BookSerializer(data=request.data)
    if serializer.is_valid():
         serializer.save()
         return Response(serializer.data, status=status.HTTP 201 CREATED)
    return Response(serializer.errors, status=status.HTTP_400_BAD_REQUEST)
@api_view(['GET'])
def get_all(request):
         books = Book.objects.all()
         serializer = BookSerializer(books, many=True)
         return Response(serializer.data)
@api_view(['GET'])
def get_byId(request,book_id):
          category = BookSerializer(Book.objects.get(pk=book_id)) # this is used when you want to convert a
         return Response(category.data)
      except Book.DoesNotExist:
          return Response('book does not exist', status=status.HTTP_400_BAD_REQUEST)
@api_view(['DELETE'])
def delete_book(request,book_id):
      book = Book.objects.get(pk=book_id)
      if not book:
         return Response(f'book with id={book_id} not exist', status=status.HTTP_404_NOT_FOUND)
      return Response(f"Successfully deleted book with id={book_id}",status=status.HTTP_204_NO_CONTENT)
@api_view(['PUT'])
def update_book(request, book_id):
    book = Book.objects.get(pk=book_id)
    if not book:
        print('not founddd')
         return Response(status=status.HTTP 404 NOT FOUND)
    serializer = BookSerializer(book, data=request.data)
    if serializer.is_valid():
        serializer.save()
         return Response(serializer.data)
    return Response(serializer.errors, status=status.HTTP_400_BAD_REQUEST)
```

```
urlpatterns = [
   path('book/get_all', get_all, name='book_list'),
   path('book/detail/<str:book_id>', get_byId, name='book_detail'),
   path('book/create',create_book, name='create_book'),
   path('book/update/<str:book_id>', update_book, name='update_book'),
   path('book/delete/<str:book_id>', delete_book, name='delete_book'),
```

6. Code model.py, views.py, urls.py cho

```
class Clothes(models.Model):
    category = models.ForeignKey(Category_Clothes, on_delete=models.CASCADE, null=True)
    title = models.CharField(max_length=255)
    brand = models.CharField(max_length=255)
    description = models.TextField()
    price = models.DecimalField(default=0.0, max_digits=10, decimal_places=2)
    created_at = models.DateTimeField(default=timezone.now)
    updated_at = models.DateTimeField(auto_now=True)
```

6.2 views.py

```
@api_view(['POST']) # neu khong co se bi error : 403 Forbidden
def create_clothes(request):
    serializer = ClothesSerializer(data=request.data)
    if serializer.is_valid():
        serializer.save()
        return Response(serializer.data, status=status.HTTP 201 CREATED)
    return Response(serializer.errors, status=status.HTTP_400_BAD_REQUEST)
@api_view(['GET'])
def get_all_clothes(request):
        clothes = Clothes.objects.all()
        serializer = ClothesSerializer(clothes, many=True)
        return Response(serializer.data)
@api_view(['GET'])
def get_byId_clothes(request,clothes_id):
             clothes = ClothesSerializer(Clothes.objects.get(pk=clothes_id)) # this is used when
             return Response(clothes.data)
        except Clothes.DoesNotExist:
            return Response('book does not exist', status=status.HTTP_400_BAD_REQUEST)
@api_view(['DELETE'])
def delete_clothes(request,clothes_id):
       clothes = Clothes.objects.get(pk=clothes_id)
       if not clothes:
          return Response(f'book with id={clothes_id} not exist', status=status.HTTP_404_NOT_FOUND)
       clothes.delete()
       return Response(f"Successfully deleted book with id={clothes_id}",status=status.HTTP_204_NO_CONTENT)
@api_view(['PUT'])
def update_clothes(request, clothes_id):
   clothes = Clothes.objects.get(pk=clothes_id)
   if not clothes:
       print('not founddd')
       return Response(status=status.HTTP_404_NOT_FOUND)
   serializer = ClothesSerializer(clothes, data=request.data)
   if serializer.is_valid():
       serializer.save()
       return Response(serializer.data)
    return Response(serializer.errors, status=status.HTTP_400_BAD_REQUEST)
```

```
path('clothes/get_all', get_all_clothes, name='clothes_list'),
path('clothes/detail/<str:clothes_id>', get_byId_clothes, name='clothes_detail'),
path('clothes/create',create_clothes, name='create_clothes'),
path('clothes/update/<str:clothes_id>', update_clothes, name='update_clothes'),
path('clothes/delete/<str:clothes_id>', delete_clothes, name='delete_clothes'),
```

7. Code model.py, views.py, urls.py cho app Clothes

7.1 model.py

```
class Mobile(models.Model):
    brand = models.CharField(max_length=255)
    price = models.DecimalField(default=0.0, max_digits=10, decimal_places=2)
    description = models.TextField()
    created_at = models.DateTimeField(auto_now_add=True)
    updated_at = models.DateTimeField(auto_now=True)
```

```
@api_view(['POST']) # neu khong co se bi error : 403 Forbidden
def create clothes(request):
    serializer = ClothesSerializer(data=request.data)
    if serializer.is_valid():
        serializer.save()
        return Response(serializer.data, status=status.HTTP_201_CREATED)
    return Response(serializer.errors, status=status.HTTP_400_BAD_REQUEST)
@api_view(['GET'])
def get_all_clothes(request):
        clothes = Clothes.objects.all()
        serializer = ClothesSerializer(clothes, many=True)
        return Response(serializer.data)
@api_view(['GET'])
def get_byId_clothes(request,clothes_id):
            clothes = ClothesSerializer(Clothes.objects.get(pk=clothes_id)) # this is used when
            return Response(clothes.data)
        except Clothes.DoesNotExist:
            return Response('book does not exist', status=status.HTTP_400_BAD_REQUEST)
@api_view(['DELETE'])
def delete_clothes(request,clothes_id):
       clothes = Clothes.objects.get(pk=clothes_id)
          return Response(f'book with id={clothes_id} not exist',status=status.HTTP_404_NOT_FOUND)
       clothes.delete()
       return Response(f"Successfully deleted book with id={clothes_id}",status=status.HTTP_204_NO_CONTENT)
@api_view(['PUT'])
def update_clothes(request, clothes_id):
   clothes = Clothes.objects.get(pk=clothes_id)
   if not clothes:
      print('not founddd')
       return Response(status=status.HTTP_404_NOT_FOUND)
   serializer = ClothesSerializer(clothes, data=request.data)
   if serializer.is_valid():
       serializer.save()
       return Response(serializer.data)
   return Response(serializer.errors, status=status.HTTP_400_BAD_REQUEST)
```

```
urlpatterns = [
   path('Mobile/get_all', get_all, name='Mobile_list'),
   path('Mobile/detail/<str:Mobile_id>', get_byId, name='Mobile_detail'),
   path('Mobile/create',create_Mobile, name='create_Mobile'),
   path('Mobile/update/<str:Mobile_id>', update_Mobile, name='update_Mobile'),
   path('Mobile/delete/<str:Mobile_id>', delete_Mobile, name='delete_Mobile'),
```

 Code model.py , views.py , urls.py cho app Category

8.1 model.py

```
# Create your models here.
class Category_Book(models.Model):
    name = models.CharField(max_length=255)
    description = models.CharField(max_length=255)
    def __str__(self):
            return self.name
class Category_Clothes(models.Model):
    name = models.CharField(max length=255)
    description = models.CharField(max_length=255)
    def __str__(self):
            return self.name
class Category_Mobile(models.Model):
   name = models.CharField(max_length=255)
    description = models.CharField(max_length=255)
    def __str__(self):
            return self.name
```

```
@api_view(['POST']) # neu khong co se bi error : 403 Forbidden

def create_category_book(request):
    serializer = CategorySerializer(data=request.data)
    if serializer.is_valid():
        serializer.save()
        return Response(serializer.data, status=status.HTTP_201_CREATED)
    return Response(serializer.errors, status=status.HTTP_400_BAD_REQUEST)

@api_view(['GET'])

def get_all_book(request):
    books = Category_Book.objects.all()
        serializer = Category_Book.objects.all()
        return Response(serializer.data)
```

```
@api_view(['GET'])
def get_byId_book(request,category_id):
           category = CategorySerializer(Category_Book.objects.get(pk=category_id)) # this is used when you want to
           return Response(category.data)
       except Category_Book.DoesNotExist:
           return Response('Category does not exist', status=status.HTTP_400_BAD_REQUEST)
@api_view(['DELETE'])
 ef delete_category_book(request,category_id):
       category = Category_Book.objects.get(pk=category_id)
       if not category:
          return Response(f'category with id={category_id} not exist',status=status.HTTP_404_NOT_FOUND)
       category.delete()
       return Response(f"Successfully deleted category with id={category_id}",status=status.HTTP_204_NO_CONTENT)
@api_view(['PUT'])
def update_category_book(request, category_id):
     category = Category_Book.objects.get(pk=category_id)
     if not category:
         print('not founddd')
         return Response(status=status.HTTP_404_NOT_FOUND)
     serializer = CategorySerializer(category, data=request.data)
     if serializer.is_valid():
         serializer.save()
          return Response(serializer.data)
     return Response(serializer.errors, status=status.HTTP_400_BAD_REQUEST)
@api_view(['POST']) # neu khong co se bi error : 403 Forbidden
def create_category_clothes(request):
    serializer = Category_Clothes_Serializer(data=request.data)
    if serializer.is_valid():
        serializer.save()
        return Response(serializer.data, status=status.HTTP_201_CREATED)
    return Response(serializer.errors, status=status.HTTP_400_BAD_REQUEST)
@api_view(['GET'])
def get_all_category_clothes(request):
        books = Category_Clothes.objects.all()
        serializer = Category_Clothes_Serializer(books, many=True)
        return Response(serializer.data)
@api_view(['GET'])
def get_byId_category_clothes(request,category_id):
          category = Category_Clothes(Category_Clothes.objects.get(pk=category_id)) # this is used when you want
          return Response(category.data)
       except Category_Clothes.DoesNotExist:
           return Response('Category does not exist', status=status.HTTP_400_BAD_REQUEST)
@api_view(['DELETE'])
def delete_category_clothes(request,category_id):
       category = Category_Clothes.objects.get(pk=category_id)
           return Response(f'category with id={category_id} not exist',status=status.HTTP_404_NOT_FOUND)
       category.delete()
       return Response(f"Successfully deleted category with id={category_id}",status=status.HTTP_204_NO_CONTENT)
```

```
@api_view(['PUT'])
def update_category_clothes(request, category_id):
    category = Category_Clothes.objects.get(pk=category_id)
    if not category:
        print('not founddd')
        return Response(status=status.HTTP_404_NOT_FOUND)
    serializer = Category_Clothes_Serializer(category, data=request.data)
    if serializer.is_valid():
        serializer.save()
        return Response(serializer.data)
    return Response(serializer.errors, status=status.HTTP_400_BAD_REQUEST)
```

```
urlpatterns = [
    path('category_book/get_all', get_all_book, name='category_list_book'),
    path('category_book/detail/<str:category_id>', get_byId_book, name='category_detail_book'),
    path('category_book/create',create_category_book, name='create_category_book'),
    path('category_book/update/<str:category_id>', update_category_book, name='update_category_book'),
    path('category_book/delete/<str:category_id>', delete_category_book, name='delete_category_book'),

    path('category_clothes/get_all', get_all_category_clothes, name='category_list_clothes'),
    path('category_clothes/detail/<str:category_id>', get_byId_category_clothes, name='category_detail_clothes'),
    path('category_clothes/create',create_category_clothes, name='create_category'),
    path('category_clothes/update/<str:category_id>', update_category_clothes, name='update_category_clothes'),
    path('category_clothes/delete/<str:category_id>', delete_category_clothes, name='delete_category_clothes'),
    path('category_clothes/delete/<str:category_id>', delete_category_clothes, name='delete_category_clothes'),
}
```

9. iews.py trong app search

```
@api_view(['GET'])
def search_book(request):
    # query = request.GET.get('title') #lấy dữ liệu từ string query
    query = request.data.get('title') # lấy dữ liệu từ payload
    print(query)
    if query:
        books = Book.objects.filter(title_icontains=query)
        serializer = BookSerializer(books, many=True)
        return Response(serializer.data)
    else:
        return Response('Book does not exist', status=status.HTTP_400_BAD_REQUEST)

urlpatterns = [
    path('book/search', search_book, name='search_book'),
]
```

10. Code model.py, views.py, urls.py cho app Cart

10.1 model.py

```
# Create your models here.
class Cart(models.Model):
    user_id = models.CharField(max_length=24)
    quantity = models.PositiveIntegerField(default=1)
    created_at = models.DateTimeField(auto_now_add=True)

def __str__(self):
    return f"{self.user.username}'s Cart"

class CartItem(models.Model):
    product_id = models.CharField(max_length=24)
    cart = models.ForeignKey(Cart, on_delete=models.CASCADE)
    #Cart: This is the model class that the foreign key is referring to. In this case, Cart is the target model, and
    #on_delete=models.CASCADE: This parameter specifies the behavior to follow when the referenced Cart instance is contact.
```

10.2 views.py

```
@api_view(['POST'])
def add_book_to_cart(request):
       user_id = request.data.get('user_id')
        book_id = request.data.get('book_id')
           cart = Cart.objects.get(user_id=user_id)
            cart.quantity += 1
            cart.save()
            cart_item = CartItem.objects.create(product_id=book_id, cart=cart)
           created = False
        except Cart.DoesNotExist:
            # Tạo mới cart nếu chưa tồn tại
            print(22222222)
            cart = Cart.objects.create(user_id=user_id, quantity=1)
            cart_item = CartItem.objects.create(product_id=book_id, cart=cart)
            created = True
       print(user_id+" "+book_id)
        if created:
            message = 'Cart created and book added successfully'
            message = 'Book added to the cart successfully'
       return Response({'message': message})
       return Response({'error': str(e)}, status=400)
```

```
urlpatterns = [
    path('cart/add_book_to_cart', add_book_to_cart, name='add_book_to_cart'),
]
```

11. Code model.py, views.py, urls.py cho app shipment

11.1 model.py

```
# Create your models here.
class shipment(models.Model):
    ### The following are the fields of our table.
    fname = models.CharField(max_length=50)
    lname = models.CharField(max_length=50)
    email = models.CharField(max_length=50)
    mobile = models.CharField(max_length=12)
    address = models.CharField(max_length=200)
    product id = models.CharField(max length=10)
    quantity = models.CharField(max_length=5)
    payment_status = models.CharField(max_length=15)
    transaction_id = models.CharField(max_length=5)
    shipment_status = models.CharField(max_length=20)
    def __str__(self):
        return '%s %s i % (self.fname, self.
        lname, self.email, self.mobile, self.product_id, self.address, self.
        quantity , self.payment_status, self.transaction_id, self.shipment_status)
```

```
### This function is inserting the data into our table.
def ship_data_insert(fname, lname, email, mobile, address, product_id,
quantity, payment_status, transaction_id, shipment_status):
    shipment_data = ship_obj(fname = fname,lname = lname, email = email,
    mobile = mobile,
    address = address, product_id = product_id, quantity = quantity,
    payment_status = payment_status, transaction_id = transaction_id,
    shipment_status = shipment_status)
    shipment_data.save()
    return 1
```

```
@csrf_exempt
def shipment_reg_update(request):
    if request.method == 'POST':
        if 'application/json' in request.META['CONTENT_TYPE']:
            val1 = json.loads(request.body)
            fname = val1.get("First Name")
            lname = val1.get("Last Name")
            email = val1.get("Email Id")
            mobile = val1.get("Mobile Number")
            address = val1.get("Address")
            product_id = val1.get("Product Id")
            quantity = val1.get("Quantity")
            payment_status = val1.get("Payment Status")
            transaction_id = val1.get("Transaction Id")
            shipment_status = "ready to dispatch"
            resp = \{\}
            respdata = ship_data_insert(fname, lname, email, mobile,
            address, product_id, quantity, payment_status, transaction_id, shipment_status)
            if respdata:
                resp['status'] = 'Success'
                resp['status_code'] = '200'
                resp['message'] = 'Product is ready to dispatch.'
                resp['status'] = 'Failed'
                resp['status_code'] = '400'
resp['message'] = 'Failed to update shipment details.'
    return HttpResponse(json.dumps(resp), content_type = 'application/json')
```

```
def shipment_data(uname):
    data = ship_obj.objects.filter(email = uname)
    for val in data.values():
        return val
@csrf_exempt
def shipment_status(request):
    if request.method == 'POST':
        if 'application/json' in request.META['CONTENT_TYPE']:
            variable1 = json.loads(request.body)
            uname = variable1.get("User Name")
            resp = {}
            respdata = shipment_data(uname)
            if respdata:
                resp['status'] = 'Success'
                resp['status_code'] = '200'
                resp['message'] = respdata
                resp['status'] = 'Failed'
                resp['status_code'] = '400'
                resp['message'] = 'User data is not available.'
    return HttpResponse(json.dumps(resp), content_type = 'application/json')
```

```
urlpatterns = [
   path('api/shipment/shipment_status', shipment_status, name='shipment_status'),
   path('api/shipment/shipment_updates', shipment_reg_update, name='shipment_reg_update'),
]
```

12. Code model.py , views.py , urls.py cho app Payment

12.1 Model

```
# This is our model for user registration.
class payment_status(models.Model):
    ### The following are the fields of our table.
    username = models.CharField(max_length=10)
    product_id = models.CharField(max_length=10)
    price = models.CharField(max_length=10)
    quantity = models.CharField(max_length=5)
    mode_of_payment = models.CharField(max_length=20)
    mobile = models.CharField(max_length=12)
    status = models.CharField(max_length=15)
    ### It will help to print the values.
    def __str__(self):
        return '%s %s %s %s %s %s %s %s ' % (self.username, self.product_id, self.price, self.quantity,
```

```
### This function is for fetching the user data.

def get_transaction_details(uname):
    user = paystat.objects.filter(username = uname)
    for data in user.values():
        return data

### This function is used for storing the data.

def store_data(uname, prodid, price, quantity, mode_of_payment, mobile):
    user_data = paystat(username = uname, product_id = prodid, price =
    price, quantity = quantity, mode_of_payment = mode_of_payment, mobile =
    mobile, status = "Success")

    user_data.save()
    return 1
```

```
@csrf_exempt
def get_payment(request):
    uname = request.POST.get("User name")
    prodid = request.POST.get("Product id")
    price = request.POST.get("Product price")
    quantity = request.POST.get("Product quantity")
    mode_of_payment = request.POST.get("Payment mode")
    mobile = request.POST.get("Mobile Number")
    print(uname)
    print(prodid)
    print(price)
    print(quantity)
    print(mode_of_payment)
    print(mobile)
    if uname and prodid and price and quantity and mode_of_payment and mobile:
        respdata = store_data(uname, prodid, price, quantity, mode_of_payment, mobile)
        respdata2 = ship_update(uname)
        if respdata:
            resp['status'] = 'Success'
            resp['status_code'] = '200'
resp['message'] = 'Transaction is completed.'
            resp['status_code'] = '400'
resp['message'] = 'Transaction is failed, Please try again.'
       resp['status'] = 'Failed'
resp['status_code'] = '400'
resp['message'] = 'All fields are mandatory.'
    return HttpResponse(json.dumps(resp), content_type = 'application/json')
@csrf exempt
def user_transaction_info(request):
     if request.method == 'POST':
         if 'application/json' in request.META['CONTENT_TYPE']:
              val1 = json.loads(request.body)
             uname = val1.get('User Name')
             resp = {}
              if uname:
                  respdata = get_transaction_details(uname)
                  if respdata:
                       resp['status'] = '5uccess'
                       resp['status_code'] = '200'
                       resp['data'] = respdata
                       resp['status'] = 'Failed'
                       resp['status_code'] = '400'
resp['message'] = 'User Not Found.'
              ### The field value is missing.
                  resp['status'] = 'Failed'
                  resp['status_code'] = '400'
                  resp['message'] = 'Fields is mandatory.'
             resp['status'] = 'Failed'
resp['status_code'] = '400'
             resp['message'] = 'Request type is not matched.'
         resp['status'] = 'Failed'
         resp['status_code'] = '400'
         resp['message'] = "Request type is not matched."
    return HttpResponse(json.dumps(resp), content_type = 'application/son')
```

```
urlpatterns = []
   path('api/payment/initiate_payment', get_payment, name='get_payment'),
   path('api/payment/get_transaction_info', user_transaction_info, name='get_transaction_info'),
]
```